MILANG-LANGHORNE CREEK AREA

PROGRESS REPORT NO. 6

JULY 1972

Department of Mines

South Australia —

Text Missing - Please refer to Mineral Resource Review 137 page 129 - 139

ELEVATION IN METRES

DEPTH IN METRES

0097-01 DM7 3555-02 DM4 3561-02 3573-02 DM9 DM10 DM11 3580-07 2784-03 2771-03 DM8 DM13 3609-02 DM1 3602-02 43-04 2506-05 DM12

SEA LEVEL

WEATHERED BASEMENT ?

N

HD STRATHALBYN

HD FREELING

HD BREMER

LANGHORNE CREEK

MOSQUITO CREEK

RIVER ANGAS

TO MILANG

0043-04 2056-02

SCALE IN KILOMETRES 0 1 2 3 4

SCALE IN MILES 0 ½ 0 1 2 3

SCALE IN KILOMETRES 0 1 2 3

SCALE IN MILES 0 ½ 1

REFERENCE

QUATERNARY			Sands, from course to fine, silts and clays, mixed in various proportions, brown to pale brown, red, grey-green, yellow - Calcrete (K)
UPPER PLIOCENE	NORWEST BEND FORMATION		Sandy limestone and calcareous sand, yellow to brown, fossiliferous
LOWER MIOCENE	MANNUM FORMATION		Limestone, sandy yellow-brown, fossiliferous (bryozoa, echinoids)
OLIGO-MIOCENE	ETTRICK FORMATION		Limestone, sandy and marl, fawn, echinoidal.
UPPER EOCENE	BUCCLEUCH GROUP		Limestone, sandy, and sand, calcarenitic, bryozoal, fawn.
			Calcarenitic sand, sandy limestone, bryozoal, fawn to brown
			Calcarenitic sand, sandstone becoming marly, fine to coarse grained, partially gravelly, bryozoal, fawn to brown-grey
			Limestone and marl, calcarenitic, sandy, ferruginous, gravelly. Fawn, brown, green, glauconitic
			Sand, calcarenitic, ferruginous, green-blue, brown
			Silt, limestone, quartz grit, dark grey, brownish, carboniaceous, sandy
? CAMBRIAN	KANMANTOO GROUP		Green-grey, completely weathered phyllite

Undifferentiated limestone

Sea level

FIG. 2

DEPARTMENT OF MINES — SOUTH AUSTRALIA

MILANG – LANGHORNE CREEK HYDROGEOLOGICAL SURVEY GEOLOGICAL FENCE DIAGRAM

HYDROGEOLOGY SECTION	F. Carosone GEOLOGIST	Drn. F.C.	SCALE: 1:31,680 (original)
		Tcd. R.H.	72 - 301 Hbc
		Ckd.	
Director of Mines	SEN. GEOLOGIST	Exd.	DATE: JUNE 1972

STRATHALBYN

RIVER ANGAS

BREMER RIVER

LANGHORNE CREEK

MILANG

LAKE ALEXANDRINA

LEGEND

- ● Accurate location and Reduced Level
- ▲ Accurate location, with approx. Reduced Level
- ■ Uncertain location within section, and approx. Reduced Level
- 62 Depth to surface of limestone in feet.
- -40 Depth to limestone below sea level in feet.
- —10— Contours of the top of Miocene limestone aquifer. (Datum M.S.L. Port Adelaide = 0)

N

SCALE IN METRES
1000 0 1000 2000 3000 4000
40 0 40 80 120 160 200
SCALE IN CHAINS

FIG. 3

DEPARTMENT OF MINES — SOUTH AUSTRALIA

MILANG–LANGHORNE CREEK GROUNDWATER SURVEY
TOP OF MIOCENE LIMESTONE AQUIFER
CONTOUR PLAN

HYDROGEOLOGY SECTION	F. Carosone GEOLOGIST	Drn. F.C.	SCALE: 1:31680 ORIG.
		Tcd. A.G.R.	72-332 Hbc
		Ckd. A.F.	
Director of Mines	SEN. GEOLOGIST	Exd.	DATE: 21ST JUNE 1972.

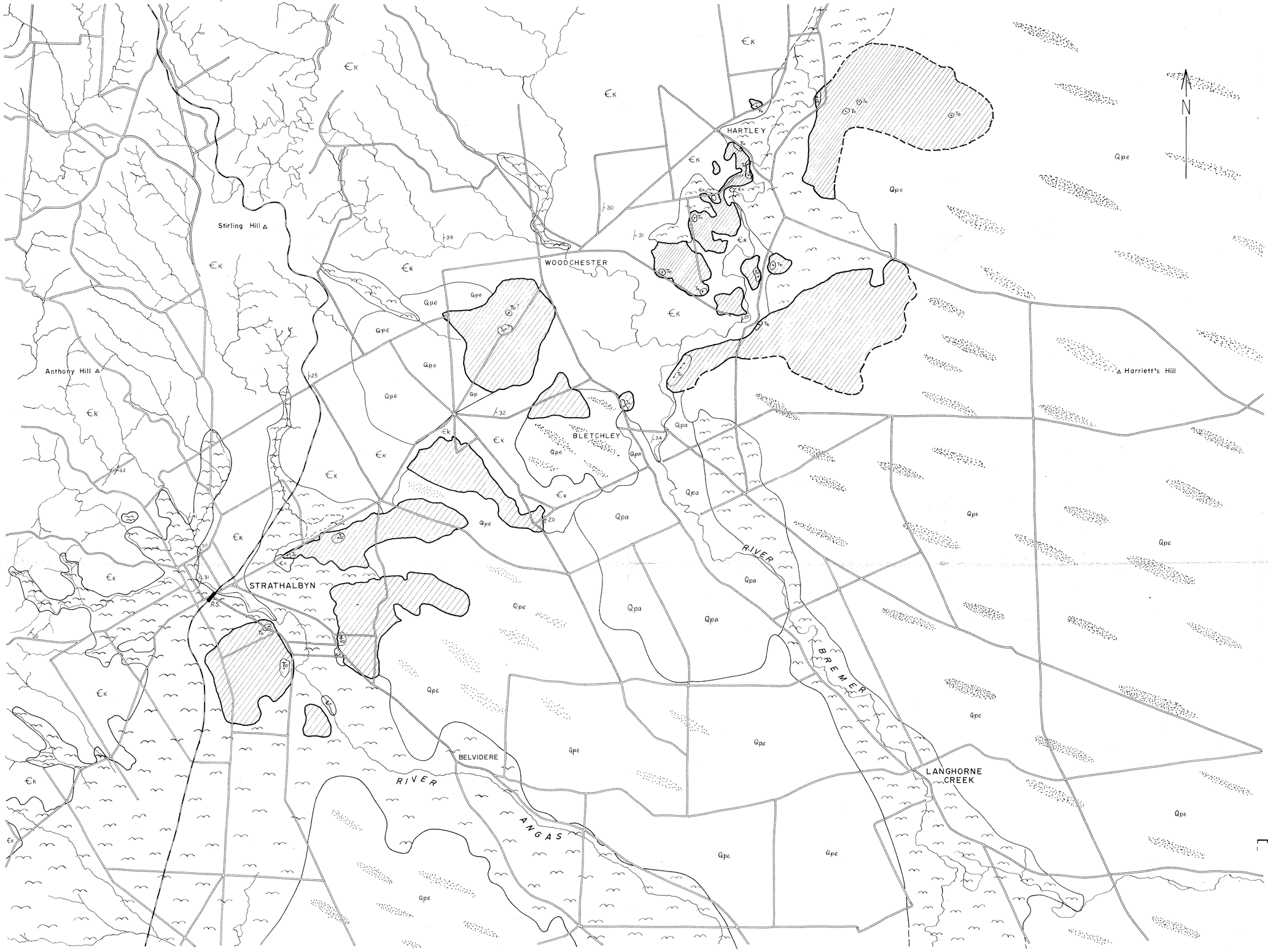
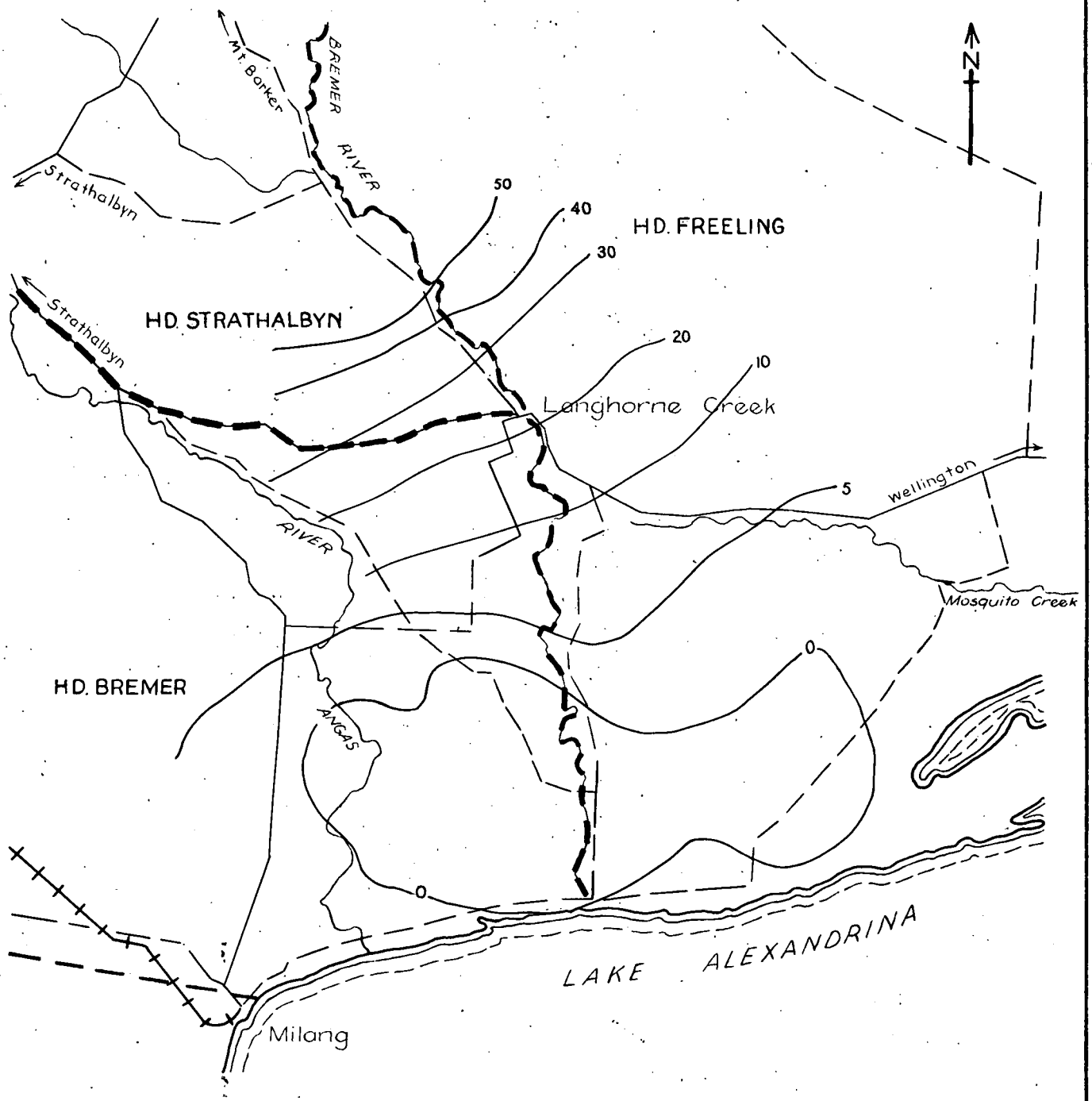


FIG. 4

DEPARTMENT OF MINES — SOUTH AUSTRALIA

NORTHERN MILANG-LANGHORNE CREEK BASIN GEOLOGICAL PLAN

HYDROGEOLOGY SECTION	GEOLOGIST	Drn. P.S.H.	SCALE: 40 chns = 1" (orig.)
		Tcd. D.J.M.	72-96 Hbc
Director of Mines	SEN. GEOLOGIST	Ckd. L.V.W.	
		Exd.	DATE: 7 Mar. 1972

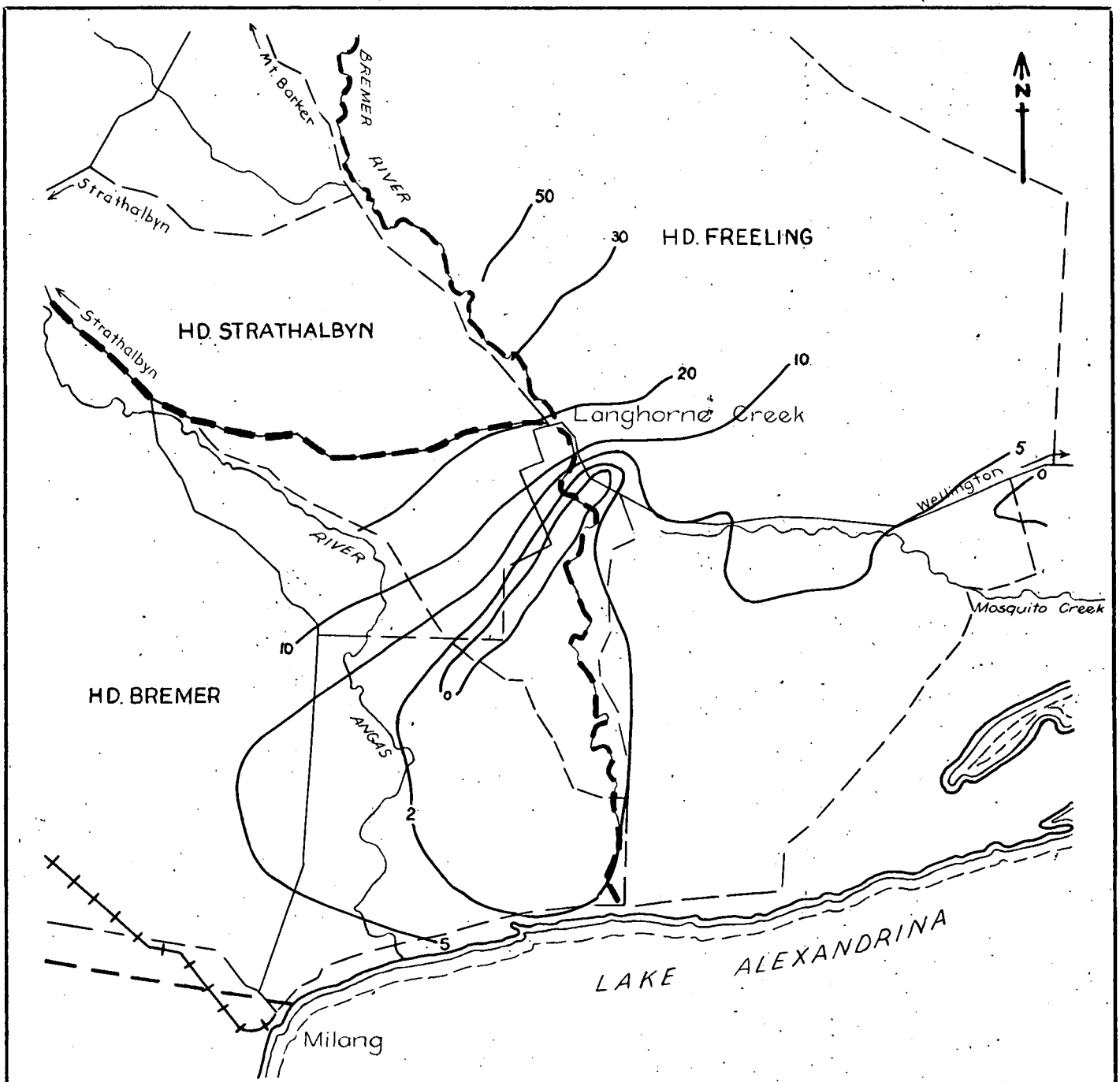


REDUCED LEVEL IN FEET
DATUM : M.S.L. = 0

FIG. 5

HYDROGEOLOGY SECTION	**DEPARTMENT OF MINES – SOUTH AUSTRALIA**	Scale: 1 inch = 2 miles
Compiled: M.A.C.	MILANG–LANGHORNE CREEK GROUNDWATER SURVEY	Date: 19 JUNE 1972
Drn. T.J.E. Ckd. A.F.	POTENTIOMETRIC CONTOURS	Drg. No.
	JUNE 1970	S 9885 Hbc

1M—2.70 A1810

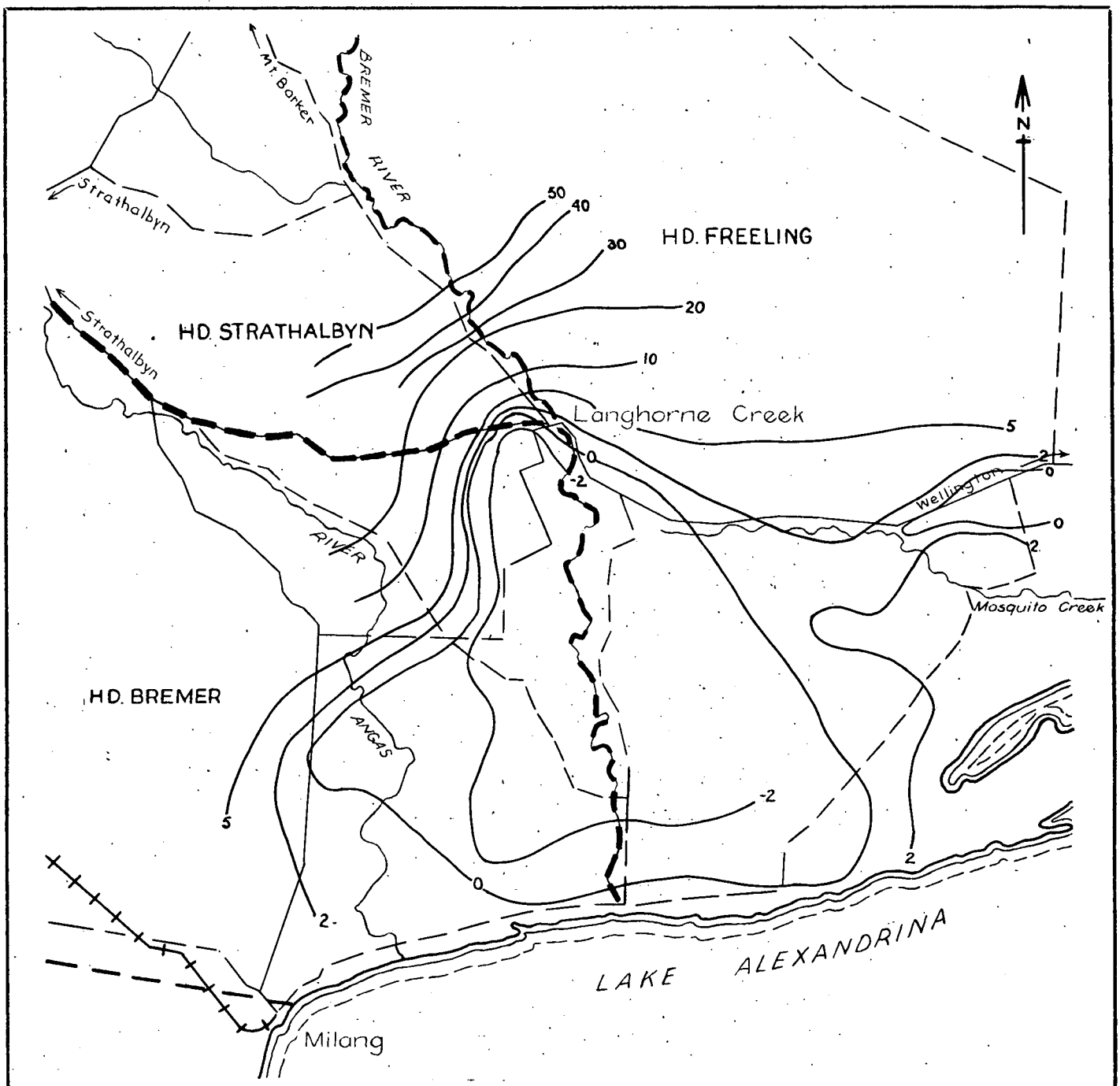


REDUCED LEVEL IN FEET
DATUM : M.S.L. = 0

FIG. 6

HYDROGEOLOGY SECTION	**DEPARTMENT OF MINES – SOUTH AUSTRALIA**	Scale: 1 inch = 2 miles
Compiled: M.A.C.	MILANG–LANGHORNE CREEK GROUNDWATER SURVEY	Date: 19 JUNE 1972
Drn. T.J.E. | Ckd. A.F.	POTENTIOMETRIC CONTOURS	Drg. No.
	SEPTEMBER 1970	S 9883 Hbc

1M–2.70 A1810

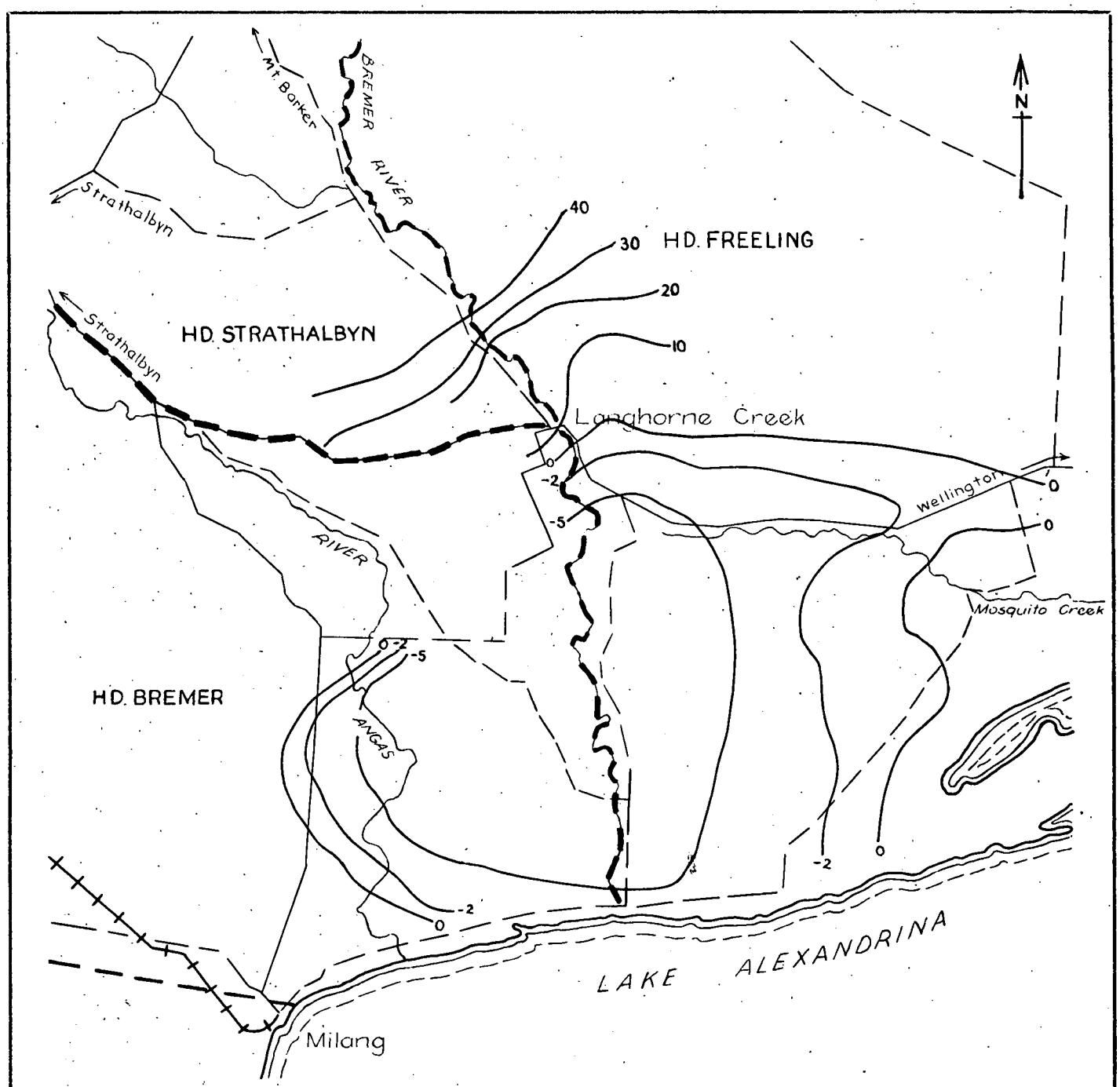


REDUCED LEVEL IN FEET
DATUM : M.S.L. = 0

FIG. 7

HYDROGEOLOGY SECTION	**DEPARTMENT OF MINES – SOUTH AUSTRALIA**	Scale: 1 inch = 2 miles
Compiled: M.A.C.	MILANG-LANGHORNE CREEK GROUNDWATER SURVEY	Date: 20 JUNE 1972
Drn T.J.E. | Ckd.A.F	POTENTIOMETRIC CONTOURS NOVEMBER 1970	Drg. No. S 9880 Hbc

1M–2,70 A1810

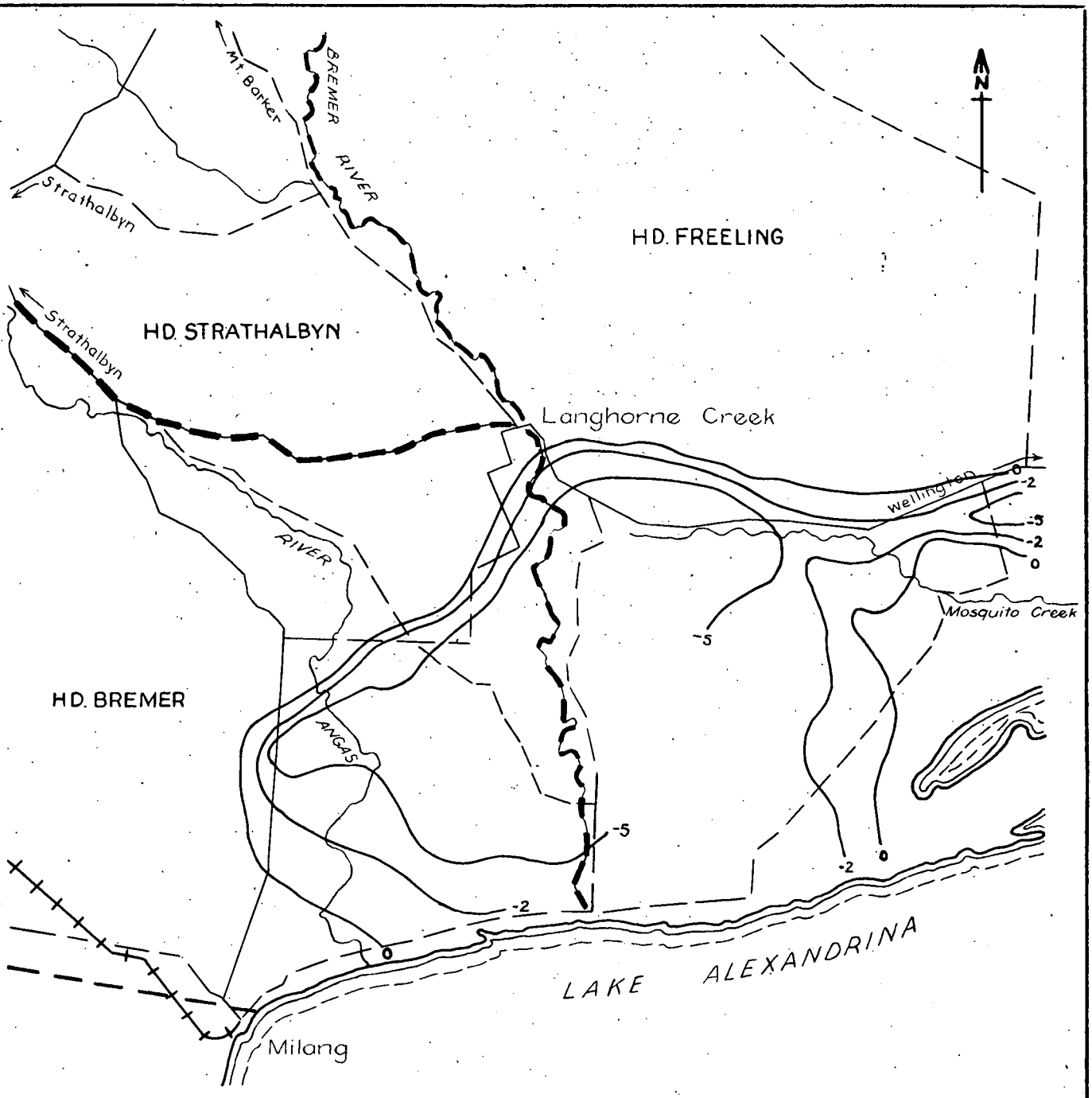


REDUCED LEVEL IN FEET
DATUM : M.S.L. = 0

FIG. 8

HYDROGEOLOGY SECTION	DEPARTMENT OF MINES – SOUTH AUSTRALIA	Scale: 1 inch = 2 miles
Compiled: M.A.C.	MILANG–LANGHORNE CREEK GROUNDWATER SURVEY	Date: 20 JUNE 1972
Drn. T.J.E. Ckd. A.F.	POTENTIOMETRIC CONTOURS	Drg. No.
	FEBRUARY. 1971	S 9881 Hbc

1M—2.70 A1810

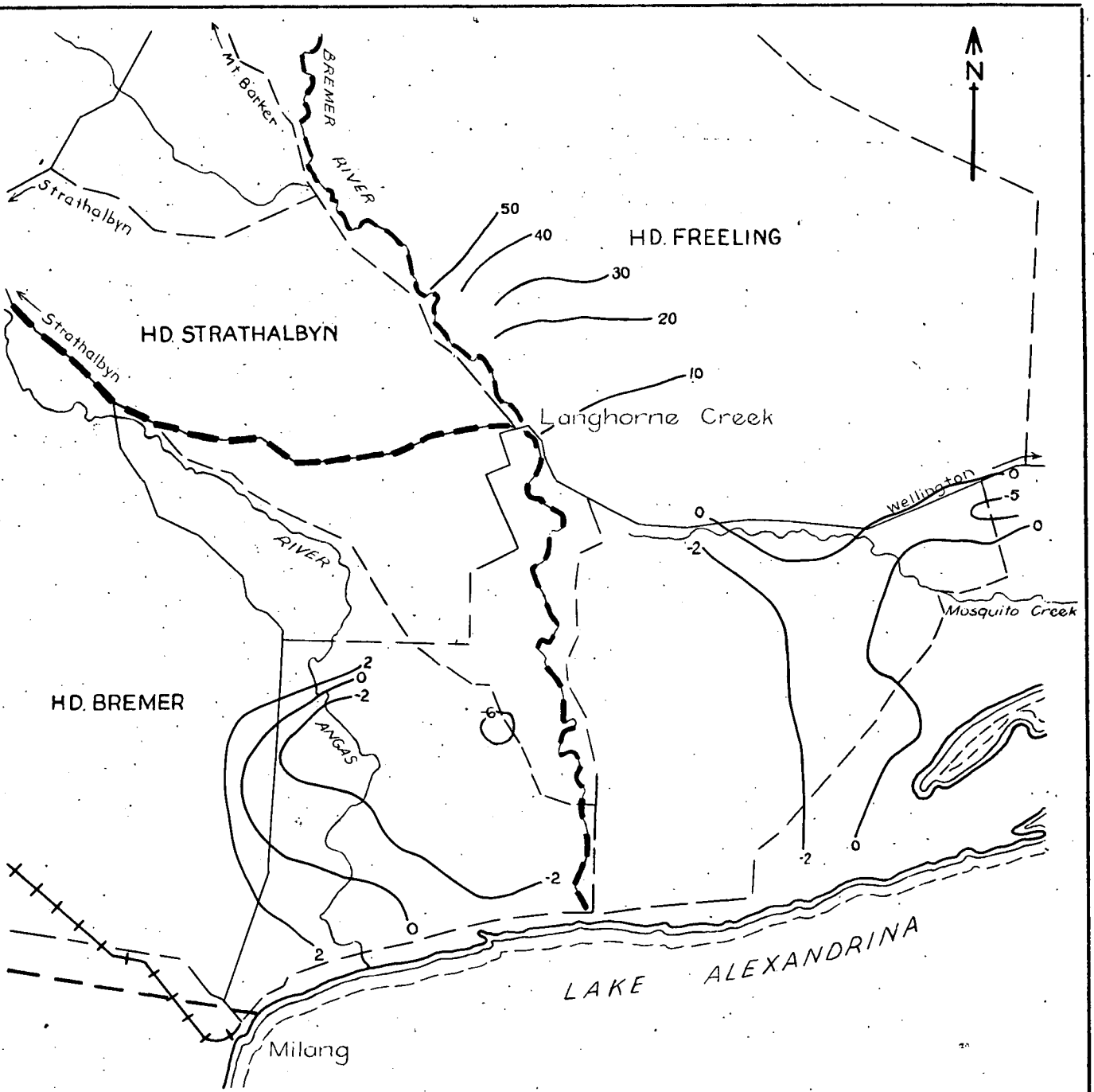


REDUCED LEVEL IN FEET
DATUM : M.S.L. = 0

FIG. 9

HYDROGEOLOGY SECTION	DEPARTMENT OF MINES – SOUTH AUSTRALIA	Scale: 1 inch = 2 miles
Compiled: M.A.C.	MILANG-LANGHORNE CREEK GROUNDWATER SURVEY	Date: 20 JUNE 1972
Drn. T.J.E. | Ckd. A.F.	POTENTIOMETRIC CONTOURS	Drg. No.
	MARCH 1971	S 9882 Hbc

1M—2.70 A1810



REDUCED LEVEL IN FEET
DATUM : M.S.L. = 0

FIG. 10

HYDROGEOLOGY SECTION	DEPARTMENT OF MINES – SOUTH AUSTRALIA	Scale: 1 inch = 2 miles
Compiled: M.A.C.	MILANG–LANGHORNE CREEK GROUNDWATER SURVEY	Date: 19 JUNE 1972
Drn. T.J.E. | Ckd. A.F.	POTENTIOMETRIC CONTOURS	Drg. No.
	APRIL 1971	S 9884 Hbc

IM–2.70 A1810

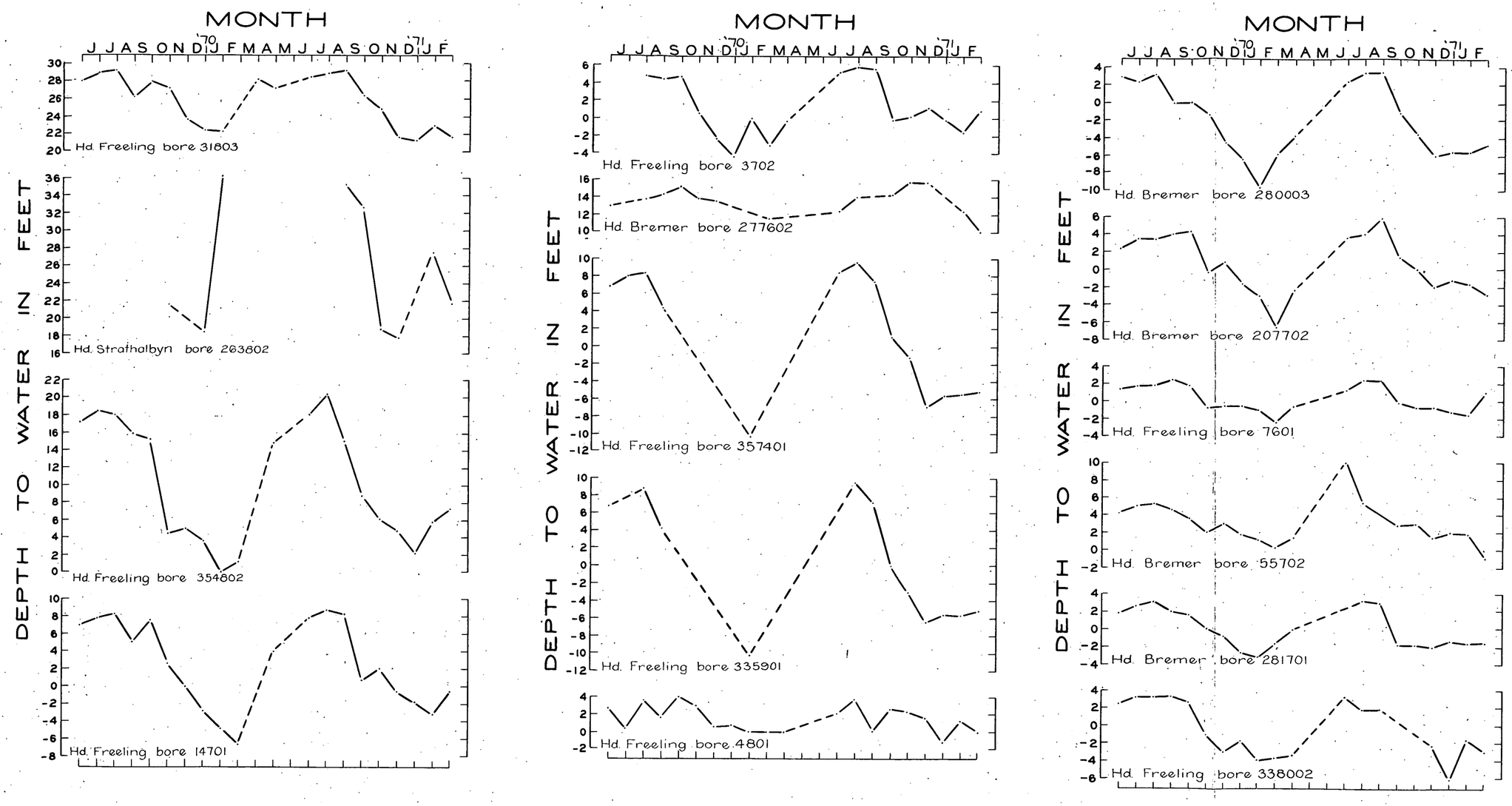


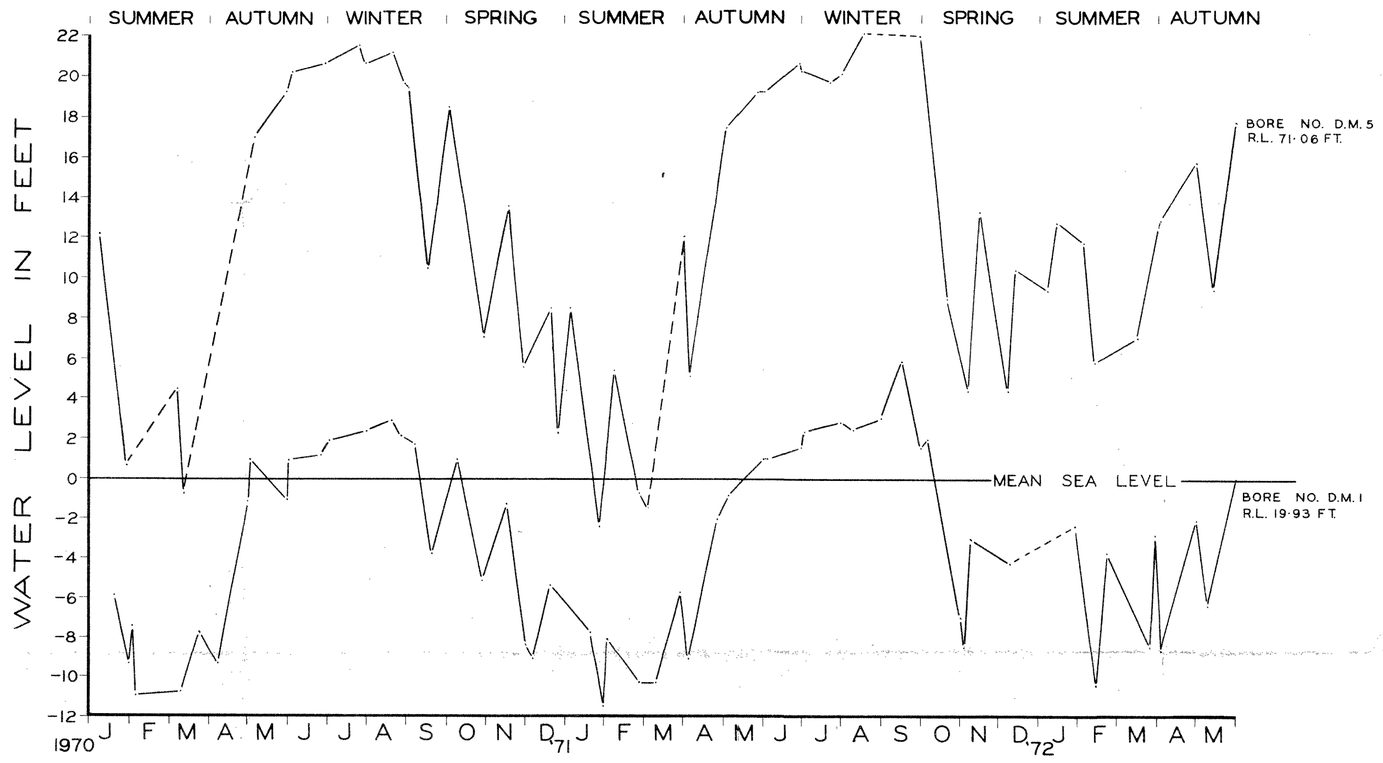
FIG. 11

Hydrogeology Section	DEPARTMENT OF MINES – SOUTH AUSTRALIA	Scale: Graphical
Compiled: F.C.	MILANG–LANGHORNE CREEK GROUNDWATER SURVEY	Date: 28th June 1972
Drn. M.A.S. Ckd. A.F.	OBSERVATION BORES HYDROGRAPHS	Drg. No. 72-344 Hbc

1M–2.70 A1811

WATER LEVEL RECORDERS SUMMARISED VALUES

SEASON



LANGHORNE CREEK
MONTHLY RAINFALL

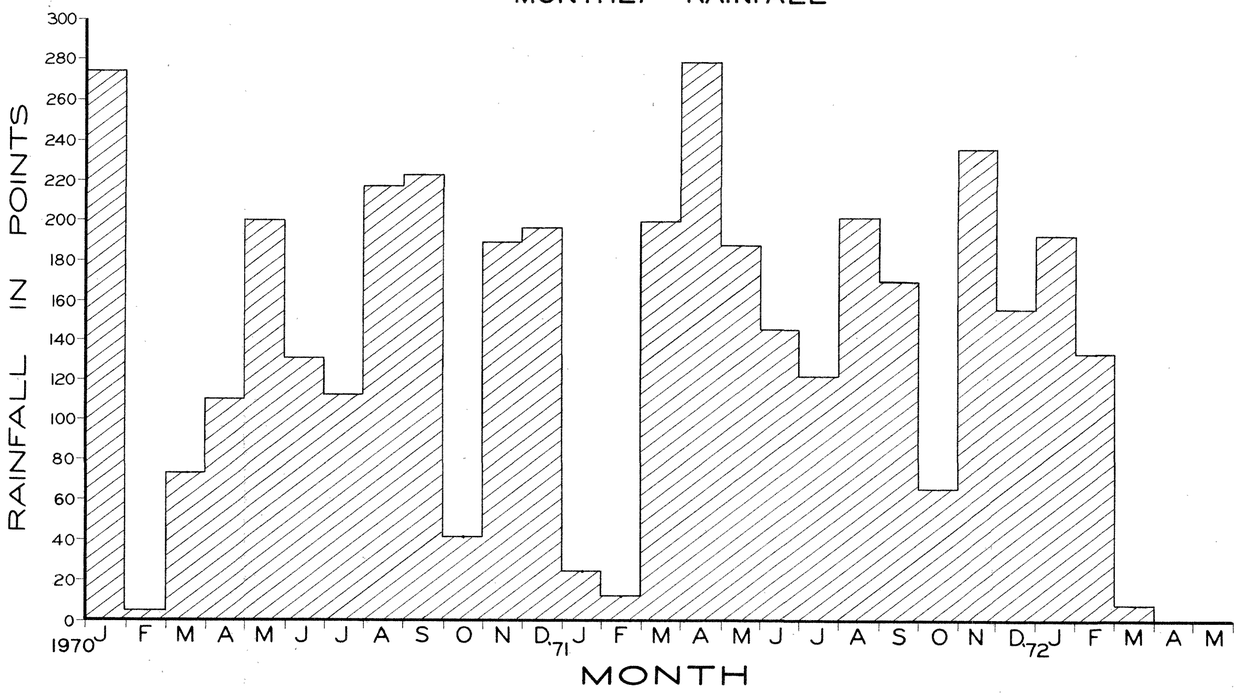
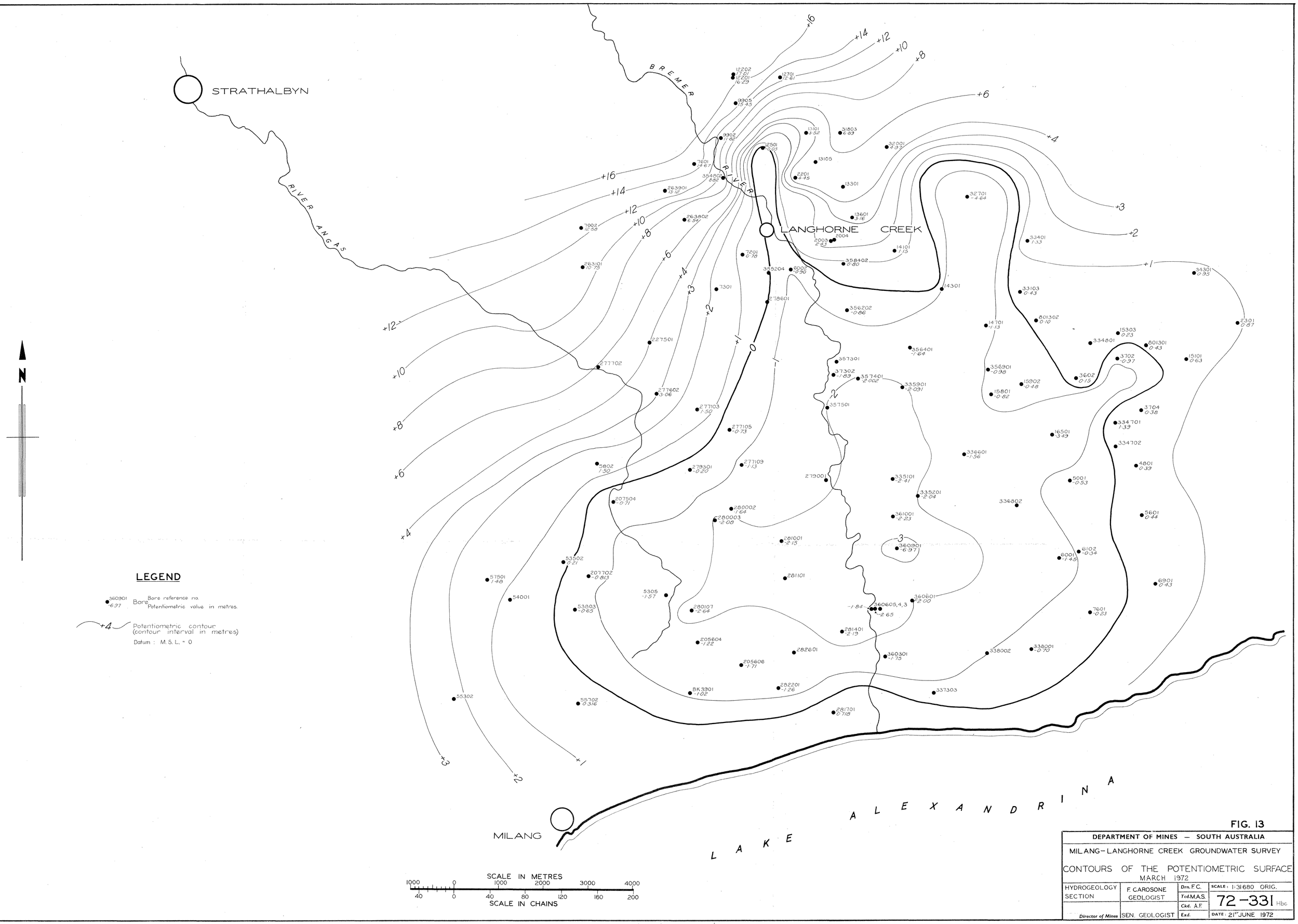


FIG. 12

DEPARTMENT OF MINES — SOUTH AUSTRALIA			
MILANG – LANGHORNE CREEK GROUNDWATER SURVEY WATER LEVEL RECORDERS & MONTHLY RAINFALL			
HYDROGEOLOGY SECTION	F. CAROSONE GEOLOGIST	Drn. F.C.	SCALE: GRAPHICAL
		Tcd. M.A.S.	72-318 Hbc
		Ckd. A.F.	
Director of Mines	SUP-GEOLOGIST	Exd.	DATE: 16TH JUNE 1972



LEGEND

360901 -6.97 Bore — Bore reference no. / Potentiometric value in metres.

+4 Potentiometric contour (contour interval in metres)

Datum : M.S.L. = 0

SCALE IN METRES
1000 0 1000 2000 3000 4000
SCALE IN CHAINS
40 0 40 80 120 160 200

FIG. 13

DEPARTMENT OF MINES — SOUTH AUSTRALIA			
MILANG–LANGHORNE CREEK GROUNDWATER SURVEY			
CONTOURS OF THE POTENTIOMETRIC SURFACE MARCH 1972			
HYDROGEOLOGY SECTION	F. CAROSONE GEOLOGIST	Drn. F.C.	SCALE: 1:31680 ORIG.
		Tcd. M.A.S.	72-331 Hbc
Director of Mines	SEN. GEOLOGIST	Ckd. A.F.	DATE: 21ST JUNE 1972
		Exd.	

STRATHALBYN

RIVER ANGAS

BREMER RIVER

LANGHORNE CREEK

LAKE ALEXANDRINA

MILANG

N

LEGEND

~3500~ Salinity Contours (Interval = 500 mg/L)

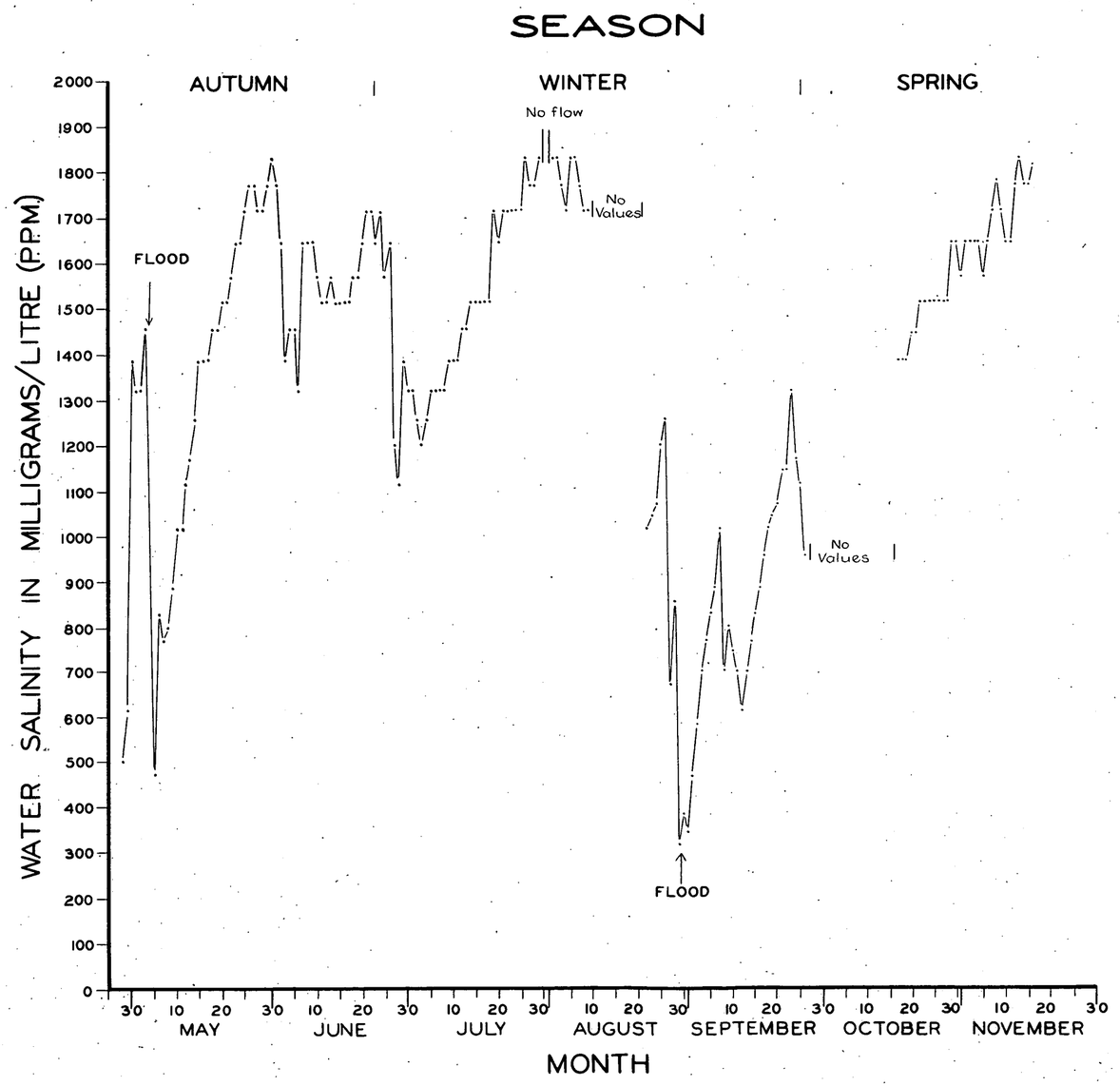
● 200102 2415 Bore - bore reference no.
- salinity values, in milligrams per litre (parts per million)

SCALE IN METRES
1000 0 1000 2000 3000 4000

SCALE IN CHAINS
40 0 40 80 120 160 200

FIG. 14

DEPARTMENT OF MINES — SOUTH AUSTRALIA			
MILANG–LANGHORNE CREEK GROUNDWATER SURVEY			
SALINITY STUDY – MARCH 1972			
HYDROGEOLOGY SECTION	F. CAROSONE GEOLOGIST	Drn. F.C.	SCALE: 1:31680 ORIG.
		Tcd. T.J.E	72-333 Hbc
Director of Mines	SEN. GEOLOGIST	Ckd. A.F.	DATE: 21 JUNE 1972
		Exd.	



RIVER BREMER DAILY SALINITY OBSERVATIONS FROM 28-4-71 TO 17-11-71 AT LANGHORNE CREEK.

FIG. 15

HYDROGEOLOGY SECTION	DEPARTMENT OF MINES – SOUTH AUSTRALIA	Scale: GRAPHICAL
Compiled: F.C.	MILANG-LANGHORNE CREEK GROUNDWATER SURVEY	Date: 22ND JUNE 1972
Drn. M.A.S. Ckd. A.F.	RIVER BREMER DAILY SALINITY OBSERVATIONS	Drg. No. 72-334 Hbc

1M—2.70 A1811

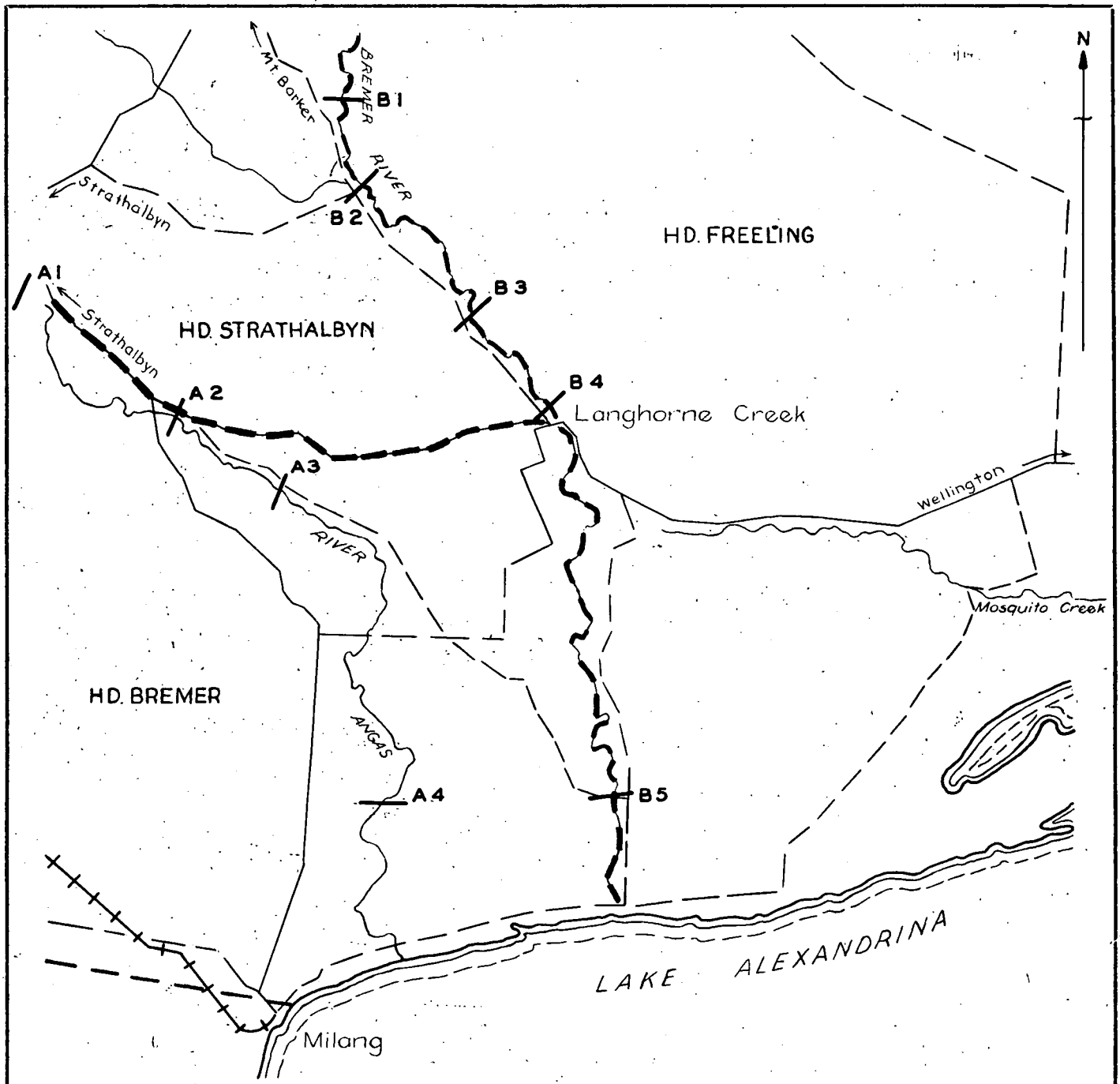


FIG. 16

HYDROGEOLOGY SECTION	DEPARTMENT OF MINES – SOUTH AUSTRALIA	Scale: 1 inch = 2 miles
Compiled: M. A. C.	MILANG–LANGHORNE CREEK GROUNDWATER SURVEY	Date: 27 JULY 1972
Drn. T.J.E. | Ckd. A.F.	STAFF GUAGE SITES	Drg. No. S 9926 Hbc

1M—2.70 A1810